



CORISECIO - DB-Offline Encryption

Next Generation Data Security

Companies are confronted with big challenges, if it comes to protecting data outside the company. Data Warehouse applications (DWH) in external data processing centers, or applications running in the Cloud, work with confidential data without protecting them adequately. Apart from data protection for such applications, performance is one of the most important requirements to be met.

ON-THE-FLY ENCRYPTION

CORISECIO DB-Offline Encryption provides encryption of confidential data on-the-fly outside the database during transfer into the external data processing center, or the Cloud. Data is encrypted during transfer using Streaming Method, and values of the same data type are inserted simultaneously. Here, the elements to be encrypted in the data structure may be selected explicitly. Only sensitive information is encrypted.

SUBSTITUTE VALUES

Example: Original ⇨ Encryption ⇨ Replacement

 Name = Smith ⇨ [bitstring-AES256] ⇨ ABC

 Visa Card = 112233 ⇨ [bitstring-AES256] ⇨ 778899

By use of the substitute values, according to data type, the applications may calculate on the data without modifications and the sensitive data are decrypted only at return to the company. All keys remain safely within the company. Only the encrypted data, which had been made anonymous, as well as the reference data, are visible, e. g. in cloud sceneries. Security of such data is guaranteed by secure algorithms applied and the securely stored keys.

PERFORMANCE

During this process, applications may be executed in the target systems without performance loss, and the valuable data never leave the company network as the keys remain there. At monthly billing runs, e. g., there are no additional requirements for companies as the CORISECIO solution is transparent and the billing runs require identical resources before and after processing.

FACTS

- On-the-fly encryption of structured data
- Protection from view and manipulation
- Fulfillment of legal requirements

BENEFITS

- High security for sensitive data
- Transparent for applications
- Minimization of risks
- Minimum implementation work
- Optimization for Cloud & data-processing-center operation



EASY INTEGRATION

Due to the transparent encryption, no modifications have to be carried out at the target systems. All substitute values may be configured according to data type, so the target system obtains the usual data structure. Using CORISECIO tools, the configuration can be modeled easily.

ONLINE ACCESS

If companies require access to the databases, CORISECIO provides the right solution. When accessing encrypted data, decryption is done real-time, and the data is available for online processing. For this synchronous access, the data is en- and decrypted transparently in a high-performance process.

PRODUCT LINE DATA SECURITY

The Data Security product line is based on the open source product secRT, an Eclipse Foundation project. It offers transparent encryption solutions with integrated access management for documents and data.

The CORISECIO DB-Offline Encryption, as a part of the product line, offers an innovative way within direct encryption of mass data, which are imported e. g. into Data Warehouses (DWH) or in Cloud Computing Environments via batch mode.

CORISECIO DB-RT Encryption offers clever database encryption, covering even the fields of specific database tables in real-time mode, which secures the databases of ERP systems reliably.

In addition, the CORISECIO Document Encryption provides file encryption with integrated access management throughout the platform.

KEY FEATURES

- En- and decryption of structured data
- Maintaining of structure and data types
- Substitute values are written at the location of the original values
- standard encryption: AES256
- modelable process
- Transparent for users and applications
- Online-access to the decrypted values within the target system with DB-Online Encryption

